

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
20 October 2005 (20.10.2005)

PCT

(10) International Publication Number
WO 2005/099228 A1

(51) International Patent Classification⁷: **H04L 29/08**

(21) International Application Number:
PCT/EP2004/002614

(22) International Filing Date: 12 March 2004 (12.03.2004)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): **TELEFONAKTIEBOLAGET L.M. ERICSSON** [SE/SE]; S-164 83 Stockholm (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **VIKBERG, Jari** [FI/SE]; Svålsättersvägen 12, S-153 38 Järna (SE). **NYLANDER, Tomas** [SE/SE]; Starrmossevägen 40, S-139 35 Värmdö (SE). **NISKA, Håkan** [SE/SE]; Kompanigatan 12, S-589 58 Linköping (SE).

(74) Agent: **GRAY, Helen, M.**; Albihns GmbH, Bayerstrasse 83, 80335 München (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

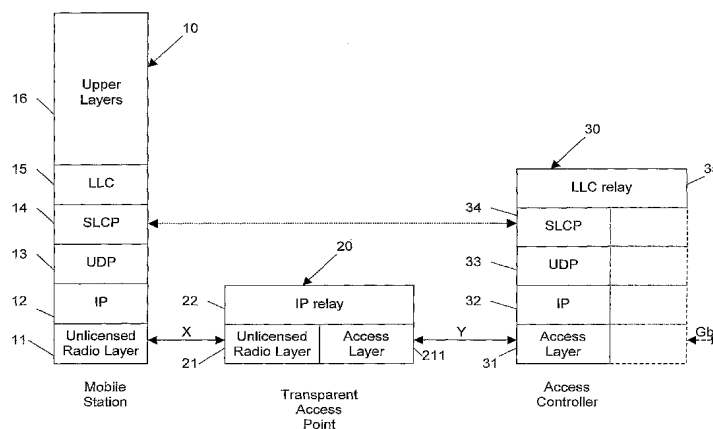
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: UNLICENSED-LICENSED INTERWORKING ENHANCEMENT THROUGH THE IMPLEMENTATION OF AN SPECIFIC LINK CONTROL PROTOCOL LAYER WITH PACKET PRIORITIZATION



(57) Abstract: An unlicensed-radio access network connects a mobile station to a conventional cellular core network. The unlicensed-radio access network includes an access controller (30) connected to the core network portion and a plurality of access points (20) connected to the access controller via a broadband packet-switched network. Each access point supports an unlicensed-radio interface permitting communication between mobile stations (10) and the access controller. Both the mobile station and the access controller comprises a first link control module (15, 35) for relaying or generating packet service frames and a second transport protocol module (13, 33). In accordance with the present invention a third, link control module (14, 34) is arranged between the first and second modules for receiving packet service frames from the first link control module, determining a transmission priority assigned to each packet frame and forwarding the packet service frames to the first transport protocol module in an order corresponding to the assigned transmission priority.

WO 2005/099228 A1